

IN THE CLAIMS

Claims 1-62 (canceled)

63. (previously presented) A method of providing a complementary metal oxide semiconductor (CMOS) RF power amplifier for a wireless transmission system comprising:

using devices with a first gate oxide thickness to form RF power amplifier input stage circuitry;

identifying a breakdown voltage level for devices used in the input stage circuitry;

selecting the first gate oxide thickness for the devices used in the input stage circuitry based on the identified breakdown voltage level for devices used in the input stage circuitry;

using devices with a second gate oxide thickness to form RF power amplifier output stage circuitry;

identifying a breakdown voltage level for devices used in the output stage circuitry; and

selecting the second gate oxide thickness for the devices used in the output stage circuitry based on the identified breakdown voltage level for devices used in the output stage circuitry, wherein the first gate oxide thickness is less than the second gate oxide thickness.

64. (previously presented) The method of claim 63, wherein the first gate oxide thickness is approximately 70 Angstroms.

65. (previously presented) The method of claim 63, wherein the second gate oxide thickness is approximately 140 Angstroms.

66. (previously presented) The method of claim 63, further comprising using one or more inverters in the input stage circuitry.

67. (previously presented) The method of claim 66, further comprising using a plurality of switching devices in the output stage circuitry.

68. (previously presented) A method of providing a cellular telephone apparatus comprising:

providing a transceiver for transmitting and receiving signals;

forming an RF power amplifier using a complementary metal oxide semiconductor (CMOS) device;

coupling the RF power amplifier to the transceiver;

using devices with a first gate oxide thickness to form input stage circuitry for the RF power amplifier;

using devices with a second gate oxide thickness to form output stage circuitry for the RF power amplifier;

selecting the first gate oxide thickness based on identified breakdown voltage levels of devices in the input stage circuitry;

selecting the second gate oxide thickness based on identified breakdown voltage levels of devices in the output stage circuitry, wherein the first gate oxide thickness is less than the second gate oxide thickness; and

coupling an antenna to the RF power amplifier and the transceiver for transmitting and receiving signals.

69. (previously presented) The method of claim 68, wherein the first gate oxide thickness is approximately 70 Angstroms.

70. (previously presented) The method of claim 68, wherein the second gate oxide thickness is approximately 140 Angstroms.

71. (previously presented) The method of claim 68, further comprising using one or more inverters in the input stage circuitry.

72. (previously presented) The method of claim 71, further comprising using a plurality of switching devices in the output stage circuitry.

73. (new) A method of providing a CMOS RF power amplifier for a wireless transmission system comprising:
forming input stage circuitry on an integrated circuit, wherein the input stage circuitry includes one or more devices having a first gate oxide thickness;
forming output stage circuitry on the integrated circuit, wherein the output stage circuitry includes one or more devices having a second gate oxide thickness;
selecting the thickness of the first gate oxide based on desired speeds of devices in the input stage circuitry and tolerable breakdown voltages of devices in the input stage circuitry; and

selecting the thickness of the second gate oxide based on desired speeds of devices in the output stage circuitry and tolerable breakdown voltages of devices in the output stage circuitry.

74. (new) The method of claim 73, wherein the first gate oxide thickness is less than the second gate oxide thickness

75. (new) The method of claim 73, wherein the first gate oxide thickness is approximately 70 Angstroms.

76. (new) The method of claim 73, wherein the second gate oxide thickness is approximately 140 Angstroms.